

Application Serial Number 10/028,382
Response to Office Action
Dated July 7, 2006

REMARKS / DISCUSSION OF ISSUES

Claims 1-6 are presently under consideration. Claims 1 and 4 are the independent claims.

II. Rejections under 35 U.S.C. § 102(b)

1. Claims 1-6 are rejected under 35 U.S.C. § 102(b) in view of *Akima* (EP 1041767). For at least the reasons set forth herein, it is respectfully submitted that this rejection is improper and should be withdrawn.
2. Claims 1-6 are rejected rejected under 35 U.S.C. § 102(b) in view of *Davis* (US 5,907,619). For at least the reasons set forth herein, it is respectfully submitted that this rejection is improper and should be withdrawn.

A proper rejection of a claim under 35 U.S.C. § 102 requires that a single prior art reference disclose each element of the claim. See, e.g., *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983). Anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. See, e.g., *In re Paulsen*, 30 F.3d 1475, 31 USPQ2d 1671 (Fed. Cir. 1994); *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990). Alternatively, anticipation requires that each and every element of the claimed invention be embodied in a single prior art device or practice. See, e.g., *Minnesota Min. & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992). For anticipation, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. See, e.g., *Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991). (Emphasis added in each instance.)

Application Serial Number 10/028,382
Response to Office Action
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1. As noted previously, claim 1 is drawn to a hashing system, and includes the feature of the "... *hash function being the same in said each hash device...*" This was noted in the response filed in December 2005. Claim 4 includes a similar feature.

Applicants maintain their position that the reference to *Akima* fails to disclose that the hash function is the same. As noted in the previous responses, the signaling station divides data to be transmitted into a plurality of data blocks D1 to Dn. A plurality of hash units 2 creates a plurality of authenticators by applying a different one way function to each block. At paragraph [0025] the reference discloses that the hash units having one-way *functions* for converting the data D1 to Dn. Again, there are many hash units and the reference discloses that these are different.

The Office Action alleges that the disclosure in *Akima* does disclose in paragraphs [0041] and [0050] that there is but one hash function disclosed. Respectfully, a review of the relied-upon portions of the reference does not reveal such a disclosure. To wit, in Figs. 2A and 3A, the reference to *Akima* portrays the hashing units 2 comprised of parallel units 2. Each unit does include a one-way function 22, with a different key. This is entirely consistent with the depiction of Fig. 1. However, the Office Action is relying on the use of the term 'one-way function 22' in asserting that the hash function is the same in each hash unit. But, this is not disclosed. Rather, the reference clearly states that the hash functions are different, as noted previously. This is further supported by the need for a different key (K1 to Kn) for each function 22; and the subsequent conversion of data D1 to Dn to authentication signs CS1 to CSn, respectively. (Kindly refer to paragraphs [0025], [0031], [0041] and [0050].

Noting that paragraph [0014] discloses applying a different one-way function to each data in the preparing a plurality of authenticators, the Examiner concedes that the reference to *Akima* "seems to suggest" that more than one hashing function is employed. The Examiner asserts that on further inspection

Application Serial Number 10/028,382
Response to Office Action
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the reference to *Akima* discloses a different key, but the same hashing function. The Examiner points to Fig. 3A of the reference.

First of all, a review of Fig. 3A or its supporting description in [0050] of *Akima* does not reveal the use of one and the same hashing function. The basis of the Examiner's premise is the one-way function 22. Notably, the Examiner draws the conclusion that this must be one and the same function. However, there is no teaching that this is the same function; rather, and as noted above, there are teachings in *Akima* of hash units having one-way **functions** for converting the data D1 to Dn.

Finally, to establish a prima facie case of anticipation, there must be **no difference between the claimed invention and the reference disclosure**, as viewed by a person of ordinary skill in the field of the invention. Applicants have pointed out at least one difference between the claims and *Akima*; and the concession by the Examiner that the reference to *Akima* seems to suggest more than one hashing function strengthens Applicants' position that there is a difference between the claims at issue and the disclosure of *Akima*.

For at least the reasons set forth above, Applicants respectfully submit that the reference to *Akima* lacks at least one of the elements of claims 1 and 4. Thus, a prima facie case of anticipation cannot be made based on *Akima* and these claims are patentable over the applied reference. Moreover, claims 2-3 and 5-6, which depend from claims 1 and 4, respectively are also patentable at least for the reasons set forth above.

2. As noted above, claim 1 is drawn to a hashing system, and includes the feature of the "... **hash function being the same in said each hash device**". Claim 4 includes a similar feature.

The Office Action alleges that *Davis* discloses this feature at column 5, lines 21-28 and Fig. 3. Applicants respectfully disagree. Applicants submit that the reference to *Davis* does not disclose that hash functions 135₁ -135₄ are same

Application Serial Number 10/028,382
Response to Office Action
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as is specifically recited in claim 1. To the contrary, the reference discloses that different hash functions may be used. Moreover, the hash results 136_1 - 136_4 from the hash functions 135_1 - 135_4 are unique digests corresponding to each partitioned section of coefficients.

Again, to establish a prima facie case of anticipation, there must be **no difference between the claimed invention and the reference disclosure**, as viewed by a person of ordinary skill in the field of the invention. From the distinctions noted above, Applicants submit that there is at least one difference between the claims at issue and the applied reference. For at least the reasons set forth above, Applicants respectfully submit that the reference to *Davis* lacks at least one of the elements of claims 1 and 4. Thus, a prima facie case of anticipation cannot be made based on *Davis* and these claims are patentable over the applied reference. Moreover, claims 2-3 and 5-6, which depend from claims 1 and 4, respectively are also patentable at least for the reasons set forth above.

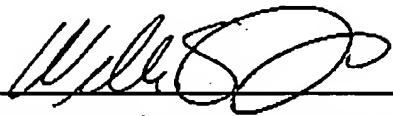
Conclusion

In view the foregoing, applicant(s) respectfully request(s) that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance.

If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Application Serial Number 10/028,382
Response to Office Action
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